

MUSTO EXPLORATIONS LTD.



1982 ANNUAL REPORT

CORPORATE DATA

COMPANY NAME:

Musto Explorations Ltd.

DIRECTORS AND OFFICERS:

Adolf H. Lundin, Chairman of the Board
H. Lutz Klingmann, President
Donald A. Humby, Secretary/Treasurer
Chester F. Millar
David Hargreaves
Ernest W. Bazinet
William A. Rand

OFFICES:

405 - 750 West Pender Street
Vancouver, B.C., Canada V6C 2T7
Telephone: (604) 689-7842
Telex: 04-51457 (MUSTO VCR)

6 Rue de Rive
1204 Geneva, Switzerland
Telephone: 022/21 74 88
Telex: 428744 (GULF CH)

SHARE CAPITAL ISSUED:

8,868,126 common shares at no par value

STOCK EXCHANGE LISTING:

Vancouver Stock Exchange (MUX)

BANKERS:

Canadian Imperial Bank of Commerce
Vancouver, B.C.

LEGAL COUNSEL:

Rand & Edgar
Vancouver, B.C.

Suitter Axland Armstrong & Hanson
Salt Lake City, Utah

REGISTERED AND RECORDS OFFICE:

400 - 750 West Pender Street
Vancouver, B.C. V6C 2T7

AUDITORS:

Price Waterhouse & Co.
Toronto, Ontario

REGISTRAR AND TRANSFER AGENTS:

Guaranty Trust Company of Canada
800 West Pender Street
Vancouver, B.C. V6C 2V7

U.S. SUBSIDIARY:

St. George Mining Corp.

*Annual General Meeting to be held at
10:00 a.m., Monday, June 27, 1983 at
400 - 750 West Pender Street,
Vancouver, British Columbia
V6C 2T7.*

PRESIDENT'S REPORT TO THE SHAREHOLDERS

THE APEX PROJECT

Substantial progress has been made with the study to determine the economic feasibility of extracting copper, gallium, germanium and zinc from the Apex ores.

The Apex property is located near the town of St. George in southern Utah. The property consists of 22 patented and nine unpatented mining claims. Musto Explorations Ltd. has an option to purchase the property from the Coastal Mining Company, a subsidiary of The Hanna Mining Company.

The following work has been done on the project to date:

Process Development

Hazen Research (International), Inc. of Golden, Colorado completed process development work on ores from the Apex mine and submitted their final report in December, 1982. A pilot plant capable of processing 50 lbs. of ore per hour was built by Hazen and commissioned in July, 1982. Approximately 43 tons of ore were processed over a period of four months. In addition, a substantial amount of test work was done in the laboratory.

Hazen successfully developed a process for extracting copper, gallium, germanium and zinc with acceptable recoveries from the Apex ores.

The results are summarized below:

	Recovery %		Product Grade %
	Dump Ore	Underground Ore	
Copper	90	98	65
Gallium	71	80	28
Germanium	69	87	29
Zinc	83	93	50

It is expected that the above recoveries and product grades can be obtained in a full-scale plant.



Plant Site and Water Supply

A suitable plant site and water supply were identified in the vicinity of St. George. This site is located on land which belongs to the Shivwits Paiute Band. Meetings were held with the Bureau of Indian Affairs and with the Band Council. A proposal to lease a portion of the Indian water right on the Santa Clara River was also made to the Band Council.

A geotechnical investigation of the plant site and tailings disposal areas has been completed.

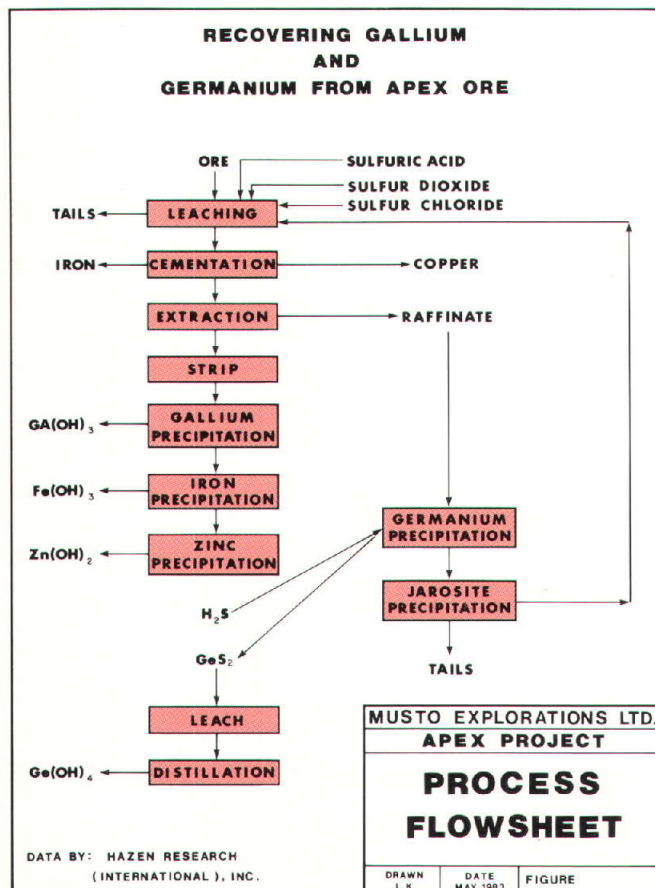
Geology and Ore Reserves

A three-man team did an extensive program of mapping and sampling on the Apex property during July and August, 1982. Geochemical and geophysical surveys were also conducted. The work done substantially confirmed the information obtained by The Hanna Mining Company and other mining companies who conducted work on the Apex property in the 1960's and early 1970's.

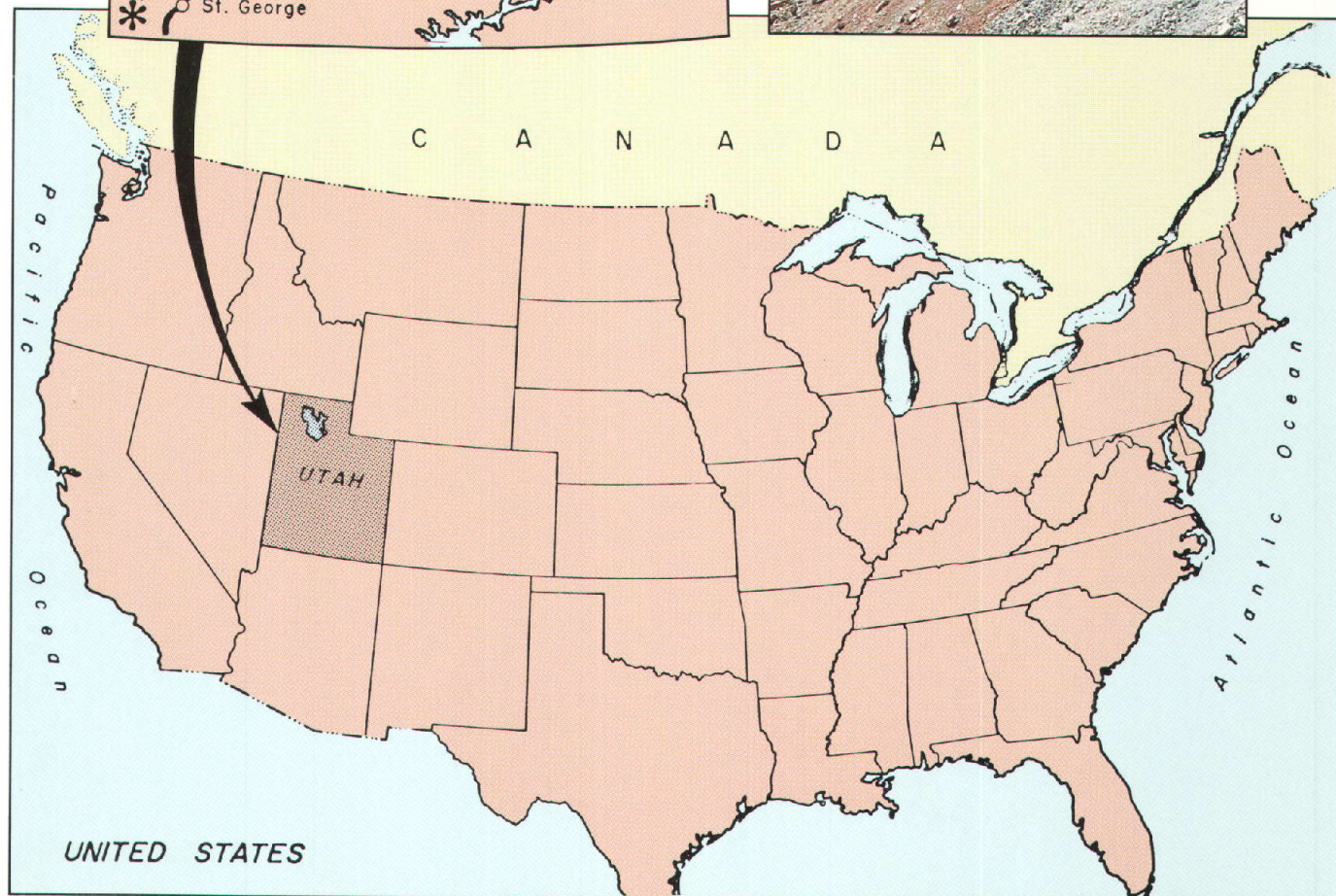
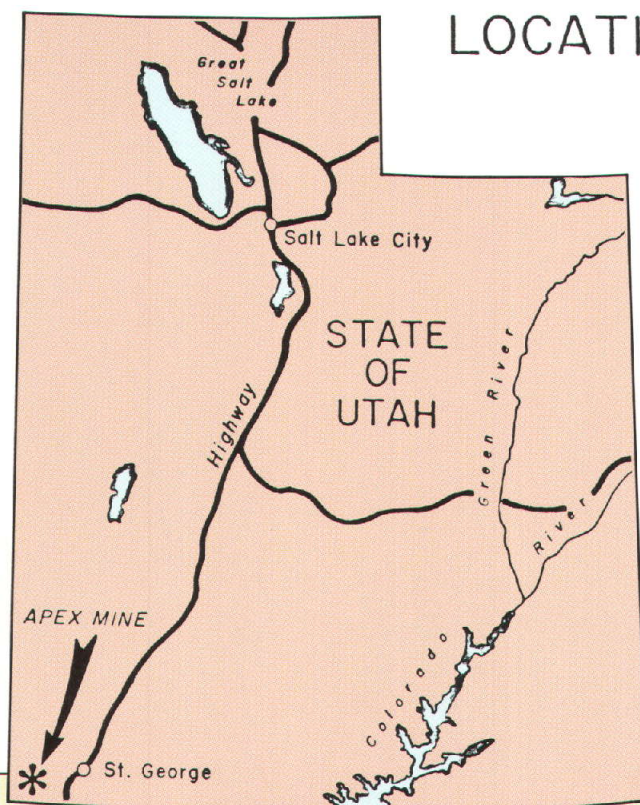
A program of underground rehabilitation and diamond drilling was started in late January, 1983. The objectives of the program are to delineate ore to be mined for the first six to eight years of the life of the mine and to obtain information for detailed mine planning. The work is progressing well and good core recovery is being obtained.

A total of 8,000 feet will be drilled on the 250 foot and 500 foot levels. This phase of the program will be completed in July, 1983 at an estimated cost of \$550,000 (U.S.).

Assays are being done by Acme Analytical Laboratories Ltd. in Vancouver with check assays by two independent laboratories in the United States.



LOCATION MAP



Capital and Working Cost Estimates

Detailed capital and working cost estimates were prepared by Hazen Research (International), Inc. The estimated cost of developing a plant capable of treating 100 short tons of ore per day or 23,000 tons per year is \$10,048,000 (U.S.). It is estimated that further amounts of \$666,000 (U.S.) and \$1,500,000 (U.S.) would be required for developing the tailings pond and underground mine respectively.

It is estimated that engineering and construction of the leach plant and ancillary facilities would take approximately eighteen months once the production decision has been made. Dump material would be treated for the first two years of production.

The estimated working costs for treating 100 short tons of dump ore per day or 23,000 short tons per year is \$173,000 (U.S.) per short ton.

Marketing

Initial contact was made with seventeen companies in nine countries. These companies either process or consume gallium and/or germanium in various forms and are thus potential customers for products from the Apex mine. Samples of product from the pilot plant were shipped to nine potential customers for evaluation. These samples had typical analyses as shown in the table below. Response has been very good and a number of proposals for purchasing total future production of gallium and germanium products have been received.

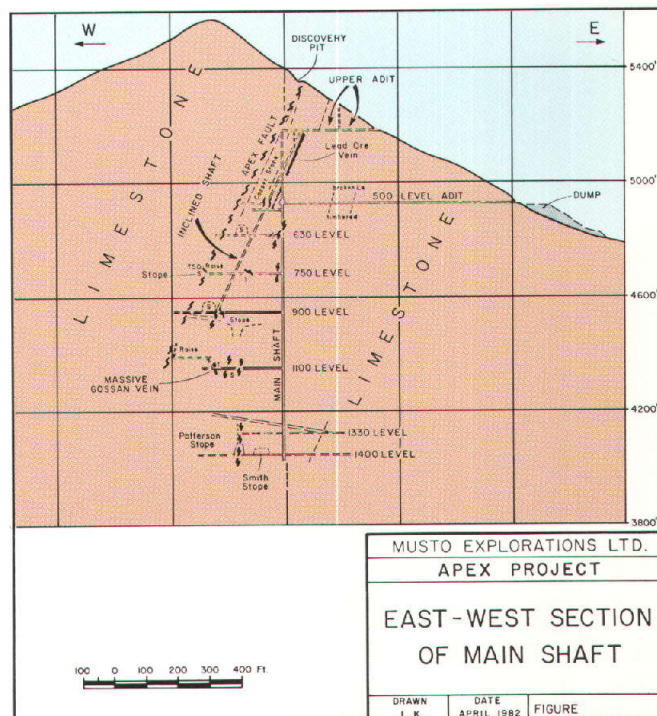
	Gallium Product %	Germanium Product %	Cement Copper %	Zinc Product %
Germanium	1.7	32.3	0.4	0.005
Gallium	25.0	N/A	0.005	0.005
Copper	0.09	N/A	60.0	3.0
Zinc	0.17	N/A	0.11	48.0
Iron	12.0	4.1	4.0	0.15
Arsenic	4.8	4.5	10.5	0.008
Chloride	3.5	N/A	N/A	N/A
Sulfate	0.8	N/A	N/A	N/A
Silver oz./ton	N/A	N/A	23.5	N/A

N/A = Not Analyzed

1. The iron, germanium and arsenic values in the gallium product are higher than the values expected during commercial production as are the iron and arsenic values in the germanium products.
2. Analyses of previous germanium product samples showed that other metallic impurities were less than 0.1%.
3. Copper values in the zinc product are higher than expected during commercial production.

The copper and zinc products were analyzed by Philipp Brothers (Canada) Ltd. These products can be marketed either in the United States or Japan and terms were suggested.

Discussions have been initiated with potential customers re long term sales contracts for the gallium and/or germanium products. The Company is seeking a take-or-pay type contract with a guaranteed minimum price to ensure the viability of the project.



GERMANIUM

Engineering and Mining Journal, March, 1983
114th Annual Survey and Outlook
For World Mineral Commodities

The report on germanium was produced by
J. H. Adams, Vice President, Eagle Picher
Industries, Inc., Specialty Minerals Division.

"Consumption" The principal market for germanium is infrared optics, and significant growth in this area was noted during the year. Substitution of other infrared materials for germanium due to its high price never materialized, as most acceptable substitutes were even more expensive. New infrared systems continued to be designed with germanium and its use is expected to grow in this field for the next several years.

Possible substitutes for germanium in optical fibers continued to be explored during the year, but none were found. Increased efficiencies in the deposition of GeO_2 on optic fiber preforms resulted in less GeCl_4 usage per kilometer of fiber. However, overall growth of the fiber optics field kept germanium demand high and should continue to do so for several years.

Significant growth in the use of germanium catalysts in plastic bottles was reported, mostly from Japan. Also in Japan, a market for germanium in medicines developed, as new products moved from R&D stages to mass consumption. Both of these applications are scheduled for continued increases. Germanium consumption by manufacturers of detector crystals and phosphors remained at about 1981 levels. Germanium usage in electronics continued its long downward trend."

Estimated world consumption of germanium for 1982 and for 1984 (Wogen Resources) are shown below:

	1982	1984
Semi-Conductors	30,000	17,000
Infrared Optics	35,000	75,000
Fibre Optics	8,000	18,000
Catalysts	22,000	25,000
Other	5,000	25,000
	<u>100,000</u>	<u>160,000</u>

Germanium is sold as a dioxide, in specialty compounds, ingots and single crystals.

Year-end U.S. producer prices for germanium metal and for electronic grade germanium dioxide are shown below:

	1977	1978	1979	1980	1981	1982
U.S.\$/kilogram						
— metal	316	348	522	784	923	1,060
— dioxide	178	196	307	487	575	660

Free market prices for metal and dioxide had a range of U.S. \$790-880 per kilogram and U.S. \$490-560 per kilogram respectively during the year.

Germanium is currently only being extracted as a by-product of the production of copper, lead and zinc.

"Outlook Most germanium markets continue to look good. Anticipated increases in infrared, fiber optics, catalysts and medicines are expected to soak up most surpluses during 1983, bringing supply and demand closer together. No production from new sources is expected during 1983."

GALLIUM

Definitive data on annual world consumption of gallium is not available but it is estimated to be between 12,000 and 20,000 kilograms.

There are only a few producers of gallium and all of these are in industrialized countries where the bulk of consumption occurs. Most producers sell directly to consumers.

Year-end U.S. producer prices for gallium metal (99.9999% pure) are shown below:

	1977	1978	1979	1980	1981	1982
U.S.\$/kilogram	550	550	510	600	630	630

Metal was sold in 1982 at discounts of up to 20% below the published U.S. producer price.

Gallium is currently only being extracted as a by-product from the sodium aluminate liquor of the Bayer process for producing alumina from bauxite and from zinc smelter residues.



Feasibility Study

A preliminary feasibility study was completed in April, 1983. The results show that the project is viable at current metal prices. The results of the study fully justify the work done on the project to date.

The following is an estimate of the costs which will be incurred to complete a final feasibility study in 1983:

	\$ U.S.
1. Cost of the rehabilitation and underground diamond drilling program	550,000
2. Property payments to Coastal Mining Company are due as follows:	
A. April 9, 1983	\$ 50,000
B. October 9, 1983	505,000
3. Sundry items	180,000
	\$1,285,000
or approximately Cdn.	\$1,577,000

Work is continuing on certain aspects of the project to optimize the potential return on investment.

OTHER PROJECTS

Park Springs Ranch, San Miguel County, New Mexico, U.S.A.

The 25% working interest in this project was terminated during the year.

Mining Claims, Bissett Lake and Snow Lake, Manitoba and the Athabasca Sandstone Basin of Northern Saskatchewan.

No work was done on these properties during the year.

The Company is actively pursuing other high technology metals and precious metals products in the western United States.

FINANCIAL

The Company had working capital of \$439,499 at the end of the financial year.

Private Placements

Two private placements of 600,000 shares each were negotiated with two mutual funds managed by the Banque Nationale de Paris in June, 1982 and January, 1983 at \$1.00 and \$1.50 per share respectively.

Two non-transferable share purchase warrants for 600,000 shares each at prices of \$1.00 and \$1.75 per share were issued in connection with the above private placements. These warrants must be exercised within twelve months from the respective dates of issue of the shares subscribed for by the Banque Nationale de Paris.

Rights Offering

The Company announced a Rights Offering on April 15, 1983 with a Record Date of April 22, 1983. Terms of the offering are One (1) Subscription Right ("Rights") for each one (1) common share held on the Record Date. Five (5) Rights and \$0.82 will entitle the Rights holder to purchase one (1) unit of the Company, a unit consisting of one (1) share and one (1) Series "A" Share Purchase Warrant. Each Series "A" Share Purchase Warrant will entitle the holder to purchase one (1) additional share of the capital stock of the Company at a price of \$1.10 per share for a period of seven (7) months from the Record Date. The Rights expired at 4:30 p.m., Vancouver time, on May 23, 1983.

The proceeds from the Rights Offering will be used to fund the ongoing development of the Apex project.

On behalf of the Board of Directors


H. Lutz Klingmann
President
June 1, 1983

FINANCIAL STATEMENTS

MUSTO EXPLORATIONS LIMITED AUDITORS' REPORT

To the Shareholders of Musto Explorations Limited:

We have examined the consolidated balance sheet of Musto Explorations Limited as at December 31, 1982 and the consolidated statements of deficit, deferred exploration expenditure and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the Company as at December 31, 1982 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada
March 15, 1983

Price Waterhouse


Chartered Accountants

MUSTO EXPLORATIONS LIMITED
CONSOLIDATED BALANCE SHEET

	DECEMBER 31	
	1982	1981
Assets		
Current assets:		
Cash and term deposits	\$ 144,134	\$ 855,254
Marketable securities (market value \$967,142; 1981 — \$382,000)	430,290	265,668
Accounts receivable	32,585	16,246
Advances to director	50,000	53,500
	<u>657,009</u>	<u>1,190,668</u>
Fixed assets (Note 2)	<u>12,385</u>	<u>15,941</u>
Investment in and advances to other companies (Note 3)	<u>2</u>	<u>270,921</u>
Mining properties (Note 4)	<u>176,485</u>	<u>252</u>
Oil and gas interests (Note 5)	<u>—</u>	<u>277,198</u>
Deferred exploration expenditure	<u>963,272</u>	<u>54,442</u>
	<u><u>\$1,809,153</u></u>	<u><u>\$1,809,422</u></u>
Liabilities		
Current liabilities:		
Accounts payable	\$ 198,177	\$ 122,349
Shareholders' Equity		
Share capital (Note 6):		
Authorized —		
20,000,000 shares of no par value		
Issued —		
6,505,105 shares (1981 — 5,505,105)	3,697,626	3,057,626
Deficit	<u>(2,086,650)</u>	<u>(1,370,553)</u>
	<u>1,610,976</u>	<u>1,687,073</u>
	<u><u>\$1,809,153</u></u>	<u><u>\$1,809,422</u></u>

Approved by the Board:


 Director


 Director

MUSTO EXPLORATIONS LIMITED
CONSOLIDATED STATEMENT OF DEFICIT YEAR ENDED DECEMBER 31

	<u>1982</u>	<u>1981</u>
Balance, beginning of year	\$1,370,553	\$ 982,216
Administrative expense	132,897	39,564
Oil and gas interests written off	277,198	—
Investment in and advances to other companies written off	270,919	257,807
Mining properties written off	—	14,375
Deferred exploration expenditure written off	4,379	175,277
General exploration expense	18,349	147,022
Loss on marketable securities	6,749	25,308
Loss on foreign exchange	16,697	19,909
	2,097,741	1,661,478
Proceeds on sale of interests in claim blocks	11,091	290,925
Balance, end of year	<u>\$2,086,650</u>	<u>\$1,370,553</u>

MUSTO EXPLORATIONS LIMITED
CONSOLIDATED STATEMENT OF DEFERRED EXPLORATION EXPENDITURE YEAR ENDED DECEMBER 31

	<u>1982</u>	<u>1981</u>
Balance, beginning of year	\$ 54,442	\$ 211,010
Expenditure:		
Saskatchewan —		
La Ronge Mining District	13,471	18,709
Utah —		
Apex Project	899,738	—
	913,209	18,709
	967,651	229,719
Deferred exploration expenditure written off to deficit:		
Kenora Mining Division, Ontario	—	98,073
Mexico	—	77,204
San Miguel County, New Mexico	4,379	—
	4,379	175,277
Balance, end of year	<u>\$ 963,272</u>	<u>\$ 54,442</u>

MUSTO EXPLORATIONS LIMITED**CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION YEAR ENDED DECEMBER 31**

	<u>1982</u>	<u>1981</u>
Source of working capital:		
Issue of 1,000,000 shares (1981 — 600,000 shares)	\$ 640,000	\$ 960,000
Interest and other income	61,879	139,697
Proceeds on sale of interests in claim blocks	11,091	290,925
Proceeds on sale of oil and gas interests	—	270,920
Decrease in advances to other companies	—	3,133
	712,970	1,664,675
Use of working capital:		
Loss on foreign exchange	16,697	19,909
Loss on marketable securities	6,749	25,308
Exploration expenditure	913,209	18,709
Administrative expense (less depreciation of \$3,096; 1981 — \$3,985)	191,680	175,276
Acquisition cost of fixed assets	(460)	19,926
Acquisition cost of mining properties	176,233	—
Acquisition cost of oil and gas interests	—	15,568
Acquisition cost of investment in a company	—	270,920
Deferred exploration expenditure written off	18,349	147,022
	1,322,457	692,638
Increase (decrease) in working capital	(609,487)	972,037
Working capital, beginning of year	1,068,319	96,282
Working capital, end of year	\$ 458,832	\$1,068,319
Represented by:		
Current assets	\$ 657,009	\$1,190,668
Current liabilities	198,177	122,349
	\$ 458,832	\$1,068,319

MUSTO EXPLORATIONS LIMITED

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS DECEMBER 31, 1982

1. Significant Accounting Policies:

Principles of consolidation — The consolidated financial statements include the accounts of Southern Energy Resources, Inc., and St. George Mining Corporation, wholly-owned subsidiaries incorporated under the laws of the United States of America.

Marketable securities and investment — The Company carries its investment and marketable securities at the lower of cost and market value.

Fixed assets — Fixed assets are recorded at cost. Depreciation is provided over the estimated useful lives of the fixed assets on the declining-balance basis at an annual rate of 20%.

Mining properties and deferred exploration expenditure — The Company carries its mining properties at cost. The Company defers the cost of its exploration expenditure and carries it as an asset until the results of the projects are known. If a project is successful, the related exploration expenditure is amortized over a period of years, pro rata to anticipated income. If the project is unsuccessful, the related exploration expenditure and mining properties are written off.

Oil and gas interests — The Company defers the costs of its oil and gas interests and carries them as an asset until the results of the projects are known. If a project is successful, the related costs and expenditures are amortized over a period of years, pro rata to anticipated income. If a project is unsuccessful, the related costs and expenditures are written off.

Foreign currency translation — Assets and liabilities in foreign currencies are translated into Canadian dollars at exchange rates prevailing at the balance sheet date for current items and at exchange rates in effect at the transaction dates for non-current assets, income and expenses.

Gains or losses on currency revaluation and translation are written off to deficit in the period to which they relate.

2. Fixed Assets:

Fixed assets consist of:	1982	1981
Furniture and fixtures, at cost	\$ 19,466	\$ 19,926
Less: Accumulated depreciation	7,081	3,985
	<u>\$ 12,385</u>	<u>\$ 15,941</u>

3. Investment In and Advances to Other Companies:

- (a) Under an agreement dated October 31, 1974 the Company acquired 49% of the issued shares of Compania Minera Presena S.A., a mining company incorporated in Mexico which holds eleven mining denouncements covering approximately 393 hectares in the Municipality of Parral, Chihuahua.

	1982	1981
Cost of 1,225 Class B shares	\$	\$ 1,000
Advances to December 31		256,808
		257,808
Written off to deficit		257,807
	1	1

(b) Chase Exploration Corporation —		
Cost of 28,596 common shares	270,920	270,920
Written off to deficit	270,919	—
	1	270,920
	<u>\$ 2</u>	<u>\$270,921</u>

4. Mining Properties:

- (a) State of Utah, U.S.A. —

By agreement dated February 19, 1982, as amended March 3, 1982, the Company acquired an option to purchase twenty-two patented and nine unpatented mining claims in the State of Utah in consideration of the sum of \$615,000 (U.S.) and the issuance of 900,000 shares of the Company. At December 31, 1982, the Company has paid U.S. \$110,000 and issued 400,000 shares (valued at \$40,000) of the purchase consideration. The balance is to be paid as follows:

- (i) \$505,000 (U.S.) on or before October 9, 1983;
- (ii) the issuance of 250,000 shares of the Company at such time as the Company makes a firm decision to put the property into production; and
- (iii) the issuance of 250,000 shares of the Company when commercial production has been reached.

In the event that the Company exercises its option to acquire the property, the Company's interest will be subject to a carried interest by the owners equal to 15% of the pre-tax operating profit for the life of the mine plus the right of the owners to acquire a 10% working interest in the mine.

Subsequent to the year-end the agreement was extended from April 8, 1983 to October 9, 1983 by the payment of an additional \$50,000 (U.S.).

Option cost to December 31, 1982 \$176,232

- (b) Saskatchewan —

- (i) The Company holds a royalty of .3% of gross sales for a defined "payout" period and a 1% gross sales royalty thereafter, on one mineral prospecting permit of 192,000 acres in the La Ronge Mining District 1
- (ii) The Company holds a 5% working interest in three claim blocks covering a total of 11,000 acres and a royalty of 1% from another company's interest in the gross sales revenue to be derived from approximately 100,000 acres in the La Ronge Mining District 1

- (c) Manitoba —

- (i) By an agreement dated October 7, 1980, the Company acquired an option to purchase a 25% interest in a mineral claim in the Bissett area, Manitoba. The vendor of the property will retain a 10% net profit interest in the property 250
- (ii) The Company holds a 1.75% carried interest in four claims in the Snow Lake area of Manitoba —

\$176,484

5. Oil and Gas Interests:

The Company acquired a 38.125% interest in certain oil and gas leases covering 53,126.45 acres in San Miguel County, New Mexico. Since the project was unsuccessful, all costs and expenditures were written off.

6. Share Capital:

- (a) During the year ended December 31, 1982, the Company issued 600,000 shares for \$600,000 cash and issued warrants for the purchase of 600,000 shares at a price of \$1.00 per share. The warrants expire on August 12, 1983. In addition, the Company issued 400,000 shares valued at \$.10 per share, for a mining property. See Note 4(a).
- (b) Stock options have been granted to the seven directors and an employee of the Company to purchase a total of 550,000 shares of the Company at a price of \$.50 per share until October 1, 1983.
- (c) By a special resolution dated June 4, 1982 registered with the Registrar of Companies British Columbia on September 9, 1982, the Company increased its authorized capital from 7,500,000 shares of no par value to 20,000,000 shares of no par value by the creation of an additional 12,500,000 shares of no par value.

- (d) Shares have been reserved as follows:

For the exercise of warrants (Note 6[a])	600,000
For stock options (Note 6[b])	550,000
For acquisition of mining claims (Note 4[a])	500,000
	<u>1,650,000</u>

7. Values:

The amounts shown for mining properties, oil and gas interests and deferred exploration expenditure represent costs-to-date and do not necessarily reflect present or future values.

8. Comparative Figures:

Certain 1981 figures have been reclassified to conform with 1982 presentation.

9. Directors and Senior Officers Remuneration During the Year Ended December 31, 1982:

The Company and its subsidiaries paid \$28,500 (1981 — \$12,170) in direct remuneration to its senior officers and directors.

MUSTO EXPLORATIONS LIMITED

CONSOLIDATED SCHEDULE OF ADMINISTRATIVE EXPENSE YEAR ENDED DECEMBER 31

	1982	1981
Loan interest	\$ —	\$ 7,800
Financing fees	30,000	48,000
Travel and promotion	10,914	16,165
Legal and audit	34,700	21,876
Administration fees	28,328	44,064
Telephone	6,944	1,904
Listing fee	1,850	2,830
Shareholders' information	12,515	1,451
Transfer agent's fees	8,650	5,517
Depreciation	3,096	3,985
Interest and bank charges	2,560	9,700
Government fees and taxes	5	199
Rent	5,589	1,515
Office supplies and expenses	8,296	2,085
Director's salary	28,500	12,170
Office salaries	12,829	—
	<u>194,776</u>	<u>179,261</u>
Interest and other income	61,879	139,697
	<u>\$ 132,897</u>	<u>\$ 39,564</u>